

Applicant : Ernest R. Chacon
Appl. No. : 10/638,159
Examiner : Helen OK Chu
Docket No. : 13710-4001

Remarks

Reconsideration of the application as amended herein is respectfully requested.

Election/Restrictions

In paragraph 1 of the Office Action, the Examiner states that the invention is limited to a storage apparatus for only two batteries. Applicant respectfully traverses this limitation, as it is unsupported by any claim language or the specification. It appears that the Examiner suggests that the number of sleeves determine the number of batteries the housing apparatus is for, when in fact there is nothing in the claims or the specification with that limitation. See Office Action at ¶1 (“The traversal is on the ground(s) that that the Office Action state that Species 2A is directed to a storage apparatus that can store ‘two batteries.... This is not found persuasive because the Office Action dated April 13, 2006 clearly states Species 2A is directed to the battery storage apparatus with ‘two sleeves.’”). Applicant respectfully submits that the Examiner has confused the number of sleeves with the number of cavities that each sleeve may have; the number of cavities determine the number of batteries that can be housed by the sleeve—hence, there can be more than two batteries if there are more than two cavities, as shown in all the Figures of Applicant’s disclosure. In the context of the presently pending claims, the number of sleeves do not determine the number of batteries that can be housed. For example, Fig. 1 of the application shows two sleeves, but contains four cavities to allow housing up to four batteries. Further, at paragraph [0015], Applicant explained “The multiple-battery housing apparatus would therefore have a first non-conductive sleeve defining two or more cavities being dimensioned to conform closely to and to retrieve one end of the batteries of known dimensions, and a second non-conductive sleeve defining two or more cavities being dimensioned to conform closely to and to receive the other end of the batteries of known dimensions.” (emphasis added.) The brief description of Fig. 1 is similarly described, as well as the detailed description at paragraph [0020]: “...Figure 1 shows a battery housing apparatus that can store up to four cylindrical batteries. The housing apparatus 1

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comprises two sleeves, 2A and 2B. The first sleeve 2A defines four annular openings ... for cylindrical-battery insertion.”) Indeed, all of the figures in the specification are variations of Fig. 1—which are for four batteries, not two.

Moreover, at paragraph [008], Applicant noted: “another aspect of the various embodiments disclosed herein to provide a battery housing apparatus for a single battery, or multiple batteries.” (emphasis added.) At paragraph [0015], Applicant stated “According to another embodiment, the battery housing apparatus may accommodate a plurality of batteries instead of a single battery.” (emphasis added.) At paragraph [0020], Applicant also explained that “a multiple-battery housing apparatus that accommodates, e.g., a maximum of four batteries, will still work for its intended purpose if only two batteries are currently housed in the apparatus, leaving two empty slots.” Lastly, Claim 8 makes clear that the non-conductive sleeves define more than one cavity to house a battery. By its very words, it is not limited to two cavities. It simply requires more than one cavity, which can mean there are two, three, or four or more cavities per sleeve, for example.

Based on the foregoing, Applicant respectfully submits that there is nothing about the claim language, the specification or the drawings that can support limiting the claims to two batteries and therefore respectfully request that this limitation be withdrawn.

Drawings

Examiner asks that Applicant submit new drawings to show that “the length of the first sleeve is shorter than the length of the battery” and “the length of the second sleeve is approximately as long as the length of the exposed battery.” Office Action at ¶ 2. Applicant respectfully submits that such a requirement is not necessary. Applicant’s understanding is that the Examiner believes that the drawings do not adequately show the sleeve length compared to a battery—*i.e.*, that the drawings should include a battery or batteries. Applicant respectfully submits that this is already illustrated in the drawings. See, e.g., Fig. 2; Fig. 4; Fig. 9. Applicant also respectfully notes that at paragraph [0031], Applicant explains that the dimensions of the sleeves do not need to be identical, and can vary. (“Likewise, the height of the first sleeve can be substantially

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different from the height of the second sleeve. ... It is also to be understood that dimensions may vary for different sizes and shapes of batteries.”

In summary, Applicant traverses the requirement that new drawings be submitted.

35 U.S.C. 112 Rejection

Examiner rejects Claims 7 and 8 under 35 U.S.C. 112 because the term “batteries of known dimensions” is used while “in the specification the inventor uses AA batteries.” Office Action at ¶4. Applicant respectfully traverses this rejection. Applicant stated in the specification that “another aspect of the various embodiments disclosed herein to provide a battery housing apparatus having a wide variety of sizes to accommodate a range of battery needs.” At paragraph [0010], Applicant also noted “another aspect of the various embodiments disclosed herein to provide a battery housing apparatus for Alkaline, NiCad, Lithium Ion, or Nickel-Metal Hydride batteries, as well as for other developing battery chemistries, regardless of their shape or size.” (emphasis added.) At paragraph [0014], Applicant stated “To quickly identify the type of battery and service life left, the sleeves can be color-coded.” (emphasis added.) Applicant also stated at paragraph [0031] that the dimensions of the sleeves may vary for “different sizes and shapes of batteries.” As is seen, Applicant respectfully submits that these and other descriptions in the specification make it clear that Applicant has not limited the term “batteries of known dimensions” to AA batteries. Applicant respectfully submits that the specification does not limit the type of batteries that can be used in any way. The drawings illustrate the various embodiments described in the specification by showing AA batteries. However, as seen from the written description of the specification, the present application repeatedly states that different types of batteries (with different sizes and shapes) can be used.

Examiner also rejects Claims 9 and 10 under 35 U.S.C. 112 because it was unclear how a “closed end” of a sleeve can have apertures, hence, contradicts each other.” Office Action at ¶5. Applicant notes that the description of “apertures” in the specification, and in Claims 9 and 10, simply note they must be large enough for air to pass through, and Claims 11 and 12 further require that the air apertures not be wider

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than the battery itself. See paragraphs [0016], [0026], and [0029], and Claims 11 and 12 (“...smaller than diameter of battery terminal...”). Applicant respectfully submits that the housing apparatus can have a “closed end” which ensures that the battery cannot pass through that end, while at the same time have apertures for air to pass through. The purpose behind the apertures is for easy insertion of the battery (paragraph [0016]). Accordingly, Applicant has amended the Claims 9 and 10, which include at least one aperture, by renaming “closed end” with “terminal end.”

35 U.S.C. § 102 Rejection

Examiner rejects Claims 7-12 as being anticipated by Takeno et al. (U.S. Patent No. 6,428,925). First, Examiner notes that Takeno et al. illustrates a battery storage apparatus with polycarbonate, and states that this is Applicant's material for non-conductivity. Applicant respectfully submits that the specification does not in any way limit the non-conductive material to polycarbonate. Instead, the specification identifies polycarbonate as an example of a non-conductive material. See paragraph [0010].

Applicant respectfully submits that the Takeno et al. reference is directed to a different invention, solves a different problem, and does not have all the elements of Applicant's invention. The Takeno et al. reference is a battery pack to power tools, or to be safely charged, both in a manner that controls the rise in temperature associated with each. See Col. 3, lines 9-11 (“The battery pack constructed in this manner may be attached integrally to, e.g., the lower part of a handgrip portion of a power tool to be used as a power source thereof.”); Col. 2, lines 7-10 (“Another object of the invention is to provide a battery pack capable of being safely charged in a manner such that a rise in temperature of cells is effectively restrained during charge.”); see *also* Col. 9, lines 37-40. While the Examiner states the Takeno et al. reference “illustrates the length of the bottom sleeve is approximately the length of the exposed batteries and the length of the top sleeve is shorter than the length of the batteries,” Office Action at ¶ 7, this is not accurate. The Takeno et al. reference discloses a bottom case that is sealed with a lid. See, e.g., Col. 4, lines 47-49 (“A top opening of the case 2 that is stored with the battery cells 1 or the top portion of the cell storage space is closed by means of a lid 4.... The battery cells 1 are sealed between the case 2 and the lid 4 ...”); Col. 5,

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lines 3-4; Col. 7, lines 26-28; Col. 8, lines 52-59. This defeats the purpose of claims 7-12, which requires an accessible battery storage apparatus. The batteries in Takeno et al. are not accessible, but are sealed and instead recharged for future use. Claim 7, as amended, requires that the battery storage apparatus allow for retrieval of batteries for removal from the battery storage apparatus for use in a device requiring batteries.

Further, because the batteries in Takeno et al. are being charged or discharged, it further defeats the purpose of Applicant's invention, which is to provide a battery storage apparatus safe from exposure. As recited in Claims 7-8 (from which Claims 9-12 depend upon), the sleeves are made of a non-conductive material. Further, Claims 11 and 12, as amended, require that the air apertures must be smaller than the diameter of a battery terminal to impede contact with a battery terminal to prevent accidental discharge. Applicant respectfully submits that this is the exact opposite of what is disclosed in Takeno et al.

The Examiner also states "the Takeno et al. reference discloses air apertures that pass through the first and second sleeve." Office Action at ¶ 7. Applicant respectfully submits that there are no "air apertures" in Takeno et al. but instead a completely hollow space – much like a donut hole. See, e.g., Figs. 1-8; claim 1 ("...and a central space as a hollow surrounded by the inner wall portion and penetrating the trough from top to bottom..."). By contrast, Claims 9 and 10 require air apertures on the sleeves themselves simply to allow air to pass through for easier battery insertion. (See, e.g., Applicant's disclosure at paragraph [0016]. The Examiner also states that in Figure 3 of Takeno et al., "the diameter of the battery terminal (Component 4) is larger than the diameter of the air aperture (Component 6)." Office Action at ¶ 7. Again, the "air aperture" of Figure 3 in Takeno et al. is not an air aperture to a sleeve or anything else – it is a hollow space. Its function is to allow cooling of the batteries during charging or use. See, e.g., Col. 2, Lines 20-24. The air apertures in the present Claims 9 and 10 allow for easier insertion of the battery, given that the sleeves are meant to fit the battery snugly unlike in Takeno et al., where the figures show space between the batteries in the case. Moreover, the air aperture(s) in Applicant's disclosure are small so as to prevent accidental discharge. See, e.g., Applicant's disclosure at paragraph

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[0024] as well as the limitations of amended Claims 9 and 10. Conversely, the battery terminals in Takeno et al. are purposefully exposed so that “the electrode leads are exposed for external connection.” Col. 2, lines 38-40, and lines 45-49; see also, e.g., Col. 8, lines 32-51. As discussed, amended Claims 9 and 10 require that the aperture have “a diameter smaller than a diameter of a battery terminal, thereby impeding contact with a battery terminal to prevent accidental discharge.” Applicant respectfully submits that Takeno et al. does not disclose such a feature.

Applicant thereby respectfully submits that the Takeno et al. reference does not anticipate his invention.

35 U.S.C. § 103 Rejection

Examiner rejects Claims 7-12 as being unpatentable over Nishiyama et al. (U.S. Patent No. 6,174,618) under 35 U.S.C. 103(a). Examiner states that “it would have been obvious ... to make the length of the battery holder longer so that it would protect the battery, since such a modification would have involved a mere change in the size of a component.” Office Action at ¶9.

Nishiyama et al., however, is not only directed to a battery holder that would completely defeat Applicant’s claims (*i.e.*, a battery apparatus to store and *protect* batteries in order to, among other things, protect against accidental discharge), but in fact teaches away from what the Examiner explains as the basis for the rejection: that “it would have been obvious matter of design choice to make the length of the battery holder longer so that it would protect the battery, since such a modification would have involved a mere change in size of a component.” Office Action at ¶ 9. In Nishiyama et al., the inventor first described the prior art as not sufficiently dissipating heat during discharging because the battery holder was substantially hermetically sealed. The inventor explained:

In the prior art battery holder, however, each cylindrical battery is surrounded by the frame and both ends are covered by the covers so that the interior of the holder is substantially hermetically sealed, and hence heat generated from the cylindrical batteries during the discharging or charging process cannot be sufficiently dissipated to the exterior. This

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produces a problem in that the temperature of the cylindrical batteries may be raised to a level higher than the specified range.

Nishiyama et al., Col. 1, lines 50-58. Thereafter, the inventor in Nishiyama et al. stated one of the aspects of the invention described therein was the “exposed side faces between the upper and lower support members...” Col. 7, lines 65-66. Thus, together with the prior art description, the Nishiyama et al. reference teaches away from making a “sleeve” or any other type of case or apparatus from fully covering the battery or batteries. Instead, the Nishiyama et al. reference is directed to a battery holder whereby the sides of the batteries are substantially exposed in order to help dissipate heat generated by charging or discharging the batteries.

Other aspects of the Nishiyama et al. reference are very different from Applicant's disclosure. In Nishiyama et al., the invention is directed towards a battery holder that provides a conduit for discharging or charging the battery. See, e.g., Col. 2, lines 12-14, lines 33-35 (“...the paired positive and negative-terminal holes (2b) being communicated with each other through a groove...”), line 59; Col. 5, lines 30-35, lines 58-58, 63, 65-67. Indeed, the method of “connecting” the batteries together is through “conducting plates” that are “made of a conductor.” Col. 6, line 41. In amended Claims 11 and 12, Applicant clarifies that the apertures are smaller in diameter than the battery terminal, thereby impeding contact with a battery terminal to prevent accidental discharge. Applicant respectfully submits that it would not have been obvious to simply extend the length of the “support members” of Nishiyama et al. because that reference teaches away from such an extension.

Second, the air apertures in Nishiyama et al. are for a different purpose—and in a different place—than the air holes of Claim 9 and 10. In amended Claims 9 and 10, the apertures are in the non-conductive sleeve so that battery insertion through the open end of the sleeve is less difficult, wherein each aperture allows easier insertion and removal of the battery. See also, e.g., paragraph [0016]. In contrast, the air holes in Nishiyama et al. are not in the closed end of the support members and therefore have nothing to do with easy insertion. Instead, they are to the side, as shown in Fig. 8, 2d of that disclosure. The purpose of this in Nishiyama et al. is so that heat is dissipated

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during discharge or recharge (*see, e.g.*, Col. 6, lines 8-8-14)—something Applicant's invention is not concerned with.

Should the Examiner have any questions or comments on the application, the Examiner should feel free to contact the undersigned via telephone.

Please charge Orrick's Deposit Account No. **15-0665** for any fees required under 37 CFR §§ 1.16, 1.17 and 1.445.

Respectfully submitted,

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